



**AgEcon** SEARCH  
RESEARCH IN AGRICULTURAL & APPLIED ECONOMICS

*The World's Largest Open Access Agricultural & Applied Economics Digital Library*

**This document is discoverable and free to researchers across the globe due to the work of AgEcon Search.**

**Help ensure our sustainability.**

Give to AgEcon Search

AgEcon Search  
<http://ageconsearch.umn.edu>  
[aesearch@umn.edu](mailto:aesearch@umn.edu)

*Papers downloaded from **AgEcon Search** may be used for non-commercial purposes and personal study only. No other use, including posting to another Internet site, is permitted without permission from the copyright owner (not AgEcon Search), or as allowed under the provisions of Fair Use, U.S. Copyright Act, Title 17 U.S.C.*

# INSTITUTIONS AND DEVELOPMENT

## MODERN ASPECTS OF PUBLIC PRIVATE PARTNERSHIP

MILOS MILOSAVLJEVIC,  
SLADJANA BENKOVIC, PH.D.

Faculty of Organizational Sciences  
University of Belgrade, Serbia

**JEL Classifications:** H54, O22

**Key words:** Infrastructure, public private partnership, hybrid public private partnership models.

**Abstract:** Development of infrastructure is essential presumption for growth and development of relevant economic entities. The empirical evidence of private initiative importance and potentials in the establishment of cooperation with the public sector in infrastructure projects financing and operation refocused professional and academic attention on the studies of this phenomenon. The realm of the public private partnership (PPP) became scientifically treated as an interdisciplinary skill based mostly on project financing, whilst practically it became almost mandatory method for economic prosperity. Practical problems in implementation appeared due to lack of knowledge and nonsystematic approach in researches of private public partnership. This paper presents theoretical and practical directions for actors in this cooperation, scoping for mobilization of assets and energy for development and facilitation, and advancing of project investments efficiency.

ISSN: 1804-0527 (online) 1804-0519 (print)

PP. 25-28

### Introduction

The need for infrastructure has grown dramatically around the world in the last decades. This needs have triggered a galloping involvement of private-sector capital in infrastructure renewal, development, and operations (Gil et al, 2009). The underlying principle behind the introduction of the private sector has many dimensions. The obvious one is in the pure public private partnership where a facility and service are provided at minimal costs to the public sector. A second dimension is the exploitation by the public sector of the private's sector ability to design and manage more efficiently. The public sector is characterized by a poor track record of integrating the design, build and operation of assets that it uses to deliver public services (Merna et al, 2002). Public private partnership creates a platform for studying, designing, funding and constructing new infrastructure projects that would otherwise be decades away or never constructed at all.

The successful delivery of the PPP requires an effective partnership between the public and private sectors. It is central to this partnership to ensure that the PPP procurement process runs smoothly, that there is sufficient capacity in the public sector to act as an effective client and a matching capacity in the private sector to deliver what is required of it and confidence on both sides that the partnership rests on a sustainable base (HM Treasury, 2003). A variety of new models have been developed in recent years to address various challenges posed to public-private partnership in specific situations and sectors (Deloitte, 2009) Therefore, synergy created within partnership can be boosted to specific niches of infrastructure development.

### Defining public private partnership concept

Infrastructure can be financed and delivered in many different ways including public, private and partnership models. However, many authors agree that neither a pure public nor a purely private infrastructure development approach is likely to be long-term sustainable (Miller, 1999). Many definitions of public private partnership (PPP) emphasize that PPPs are established because they can benefit both from the public and the private sector (Hodge et al., 2005).

Empirical studies and theoretical modeling structured potential disadvantages of these extreme financing points into two main groups. First group contains threats that stress public sector inefficiencies such as slow and inefficient decision making process, inefficient organizational and institutional frameworks, and lack of competition and efficiency, which are commonly known as government failure. Imperfections of the purely private provision of infrastructure are, among others, based on potential asymmetry in service provision, and consequent need for the enhanced control by the government authorities. Hence, a formula for the proper relation of public and private involvement has to be found.

Public investment and international agencies finance only a small fraction of needed investment, thus opening the field to private investors. The private share in infrastructure investment ranged from lows of 9% and 13% in Germany and France to highs of 47% and 71% in the United States and the United Kingdom (Miller et al., 2000).

In most developed countries, PPPs are utilized to some degree or another in the provision of services or infrastructure.

In the Western Europe, the UK has taken a lead position in PFI (equivalent for PPP) procurement, although other countries experiment with a wide range of PPPs. In the developing world, there is a strong regional concentration of PPP contracts, principally in Latin America, and followed by South East Asia (Akintoye et al., 2003). There are many different types of PPPs and the models applied differ from country to country. In fact, the PPP concept is evolving in different ways in each country in which the arrangements are being implemented (Grimsey et al., 2004).

Nevertheless, it is hard to find unique definition for partnership of private and public sector. Broader definition see PPP as arrangement under which the private sector supplies infrastructure assets and infrastructure-based services that have traditionally been provided by the government (Hemming, 2006). More specific definitions include essential characteristics, and define PPP as a partnership between public and private sectors which work cooperatively towards shared or compatible objectives (e.g. providing infrastructure services), together with involvement of risk and responsibility sharing between the private and public sectors (Kwak et al., 2009).

Although there is no unified definition of the PPP, all definitions have common features or characteristics, such as: (1) PPP always refers to cooperation between two or more parties (at least one of them has to be public), (2) each participant is principal, (3) the relationship is enduring, stable, and based on mutual or complementary goals, (4) each participant transfers material or immaterial resources to partnership, and (5) risk and responsibility are distributed among all parties in project (Akintoye et al., 2003). Therefore, participants, relationship, resources, sharing, and continuity are the most important elements of PPP.

Many public services have traditionally been provided directly by the government with no collaboration with the private sector. But the public sector is increasingly looking to the private sector for partners who can produce public goods (Rabin, 2005). An important rationale for public provision of (or intervention in) infrastructure activities is economies of scale. Once infrastructure systems are set up, output can be increased at declining average cost until the capacity limit becomes binding. Therefore, such cases suggest a monopoly of production. And the easiest monopoly to regulate is a public one. Another rationale for public provision may be non-exclusive and metering costs (Mody, 1996).

The other extreme is private provision of public goods, where the private sector parties are fully responsible for each aspect of infrastructure service delivery. Public private partnership models occur as we move from one extreme to another. These PPPs generally vary in terms of private involvement (Kwak et al., 2009).

#### **Advantages and disadvantages of public private partnership**

According to numerous empirical studies across the world, public private partnership represents a model that shows myriad of benefits compared to traditional forms of financing, especially because it can compensate partially or in total public expenditure for infrastructure facilities or infrastructure

service provision. The gap between perspective needs for infrastructure services and possibilities of national economies (especially in developing countries) is important argument which emphasizes importance of PPPs.

In last decades PPPs were seen as key tool of public policy across the world. Not only have they become seen as a cost efficient and effective mechanism for the implementation of public policy across a range of policy agendas, they have also been articulated as bringing significant benefits in their own right - particularly in terms of developing socially inclusive communities (Osborne, 2000). PPPs offer exciting opportunities to achieve a number of benefits, including following:

1. Financial responsibility is greater due to market characteristics of this method. PPPs allow governments to access alternative private sources of capital, such as investment and pension funds, allowing important and urgent projects to proceed when otherwise they may not be possible, or providing new sources of capital when the relaxation of public expenditures is needed.

2. A PPP can provide to-budget and on-time project delivery. Given that a PPP implies a reduction of government capital expenditure, the short-term effect of a public-private partnership is to reduce total government expenditure and the budget deficit. In the long term, the future stream of fees and payments to the private partner must also be taken into consideration (OECD, 2008). The PPP helps keep public sector budget, and especially budget deficiencies down. Public sector can avoid up-front capital costs and reduce administrative costs (Kwak et al., 2009). Empirical evidence shows that a PPP can provide on-time project delivery. Private party is strongly motivated to complete project as early as possible so that the payment stream can commence. For instance, National Audit Office from United Kingdom reported that 76% of the projects surveyed were completed and available for use by the time specified in the contract, compared to only 30% in traditional building procurement (NAO, 2003).

3. Not only initial capital costs of building and constructing an asset, but complete life-cycle costs can be reduced. These costs include the on-going operations and maintenance costs, the costs of major upgrades and rehabilitation over time, and the costs associated with decommissioning or disposing the asset at the end of its useful life.

4. Stronger customer orientation. Since the asset is no longer managed by the public sector, government managers are freer to concentrate more heavily on ensuring the provider meets desired customer service levels (Deloitte, 2009). PPPs enable improvements in quality of service. International experience suggests that the quality of service achieved under a PPP is often better than that achieved by traditional procurement. This may reflect the better integration of services with supporting assets, improved economies of scale, the introduction of innovation in service delivery, or the performance incentives and penalties typically included within a PPP contract (European Commission, 2003).

5. Risk transfer - a core principle of any PPP is the allocation of risk to the party best able to manage it at least

cost. The aim is to optimize rather than maximize risk transfer, and to ensure that best value is achieved (European Commission, 2003). The most important risks are financial, constructing, operational, and political (Benkovic, 2008). A risk retained by government in owning and operating infrastructure typically carries substantial, often unvalued cost. Transferring some of the risk to a private party, which can manage it at less cost, can substantially lower the overall cost to government (Grimsey et al., 2004).

6. Focus on strategic issues. PPP enables government to refocus from operational and tactical to strategic issues - from inputs to outputs. For instance, instead of maintaining physical assets, government can design models for social value creation. Thus, PPP methods can promote economic and social development.

As well as benefits there are certain risks associated with PPPs. Some empirical studies corroborate the notion that privatization and private finance do not automatically bring efficiencies (Gil et al., 2009). Since, the PPP method is still evolving, the list of risks and disadvantages will certainly be longer.

1. PPPs are relatively new concept that are not well understood in some countries. Both public and private sector lack appropriate knowledge and skills to implement such long-term projects (Kwak et al., 2009). Private partners may be exposed to some difficulties and financial problems or other circumstances that may prevent them from honoring their commitments. Therefore, one of the most common objectives to PPPs is that the government will be forced to bail out PPP project when demand fails to meet projections (Deloitte, 2009), and this difficulties have to be anticipated and considered in PPP contracts. Governments have to establish mechanisms for partnerships in order to create well-governed projects and heighten the support of society for PPPs.

2. Limited competition is immanent to PPP projects due to high bidding costs. Even more, if there are only a limited number of potential private parties with the ability to respond to a request for proposals, competition as important feature may be endangered. Consequently, PPPs could create monopolies.

3. Political debates, complex negotiation processes and public opposition can cause delays in project implementation. Irreversible nature of PPP commitment and project duration enhance political risk. Reduced transparency, as a degree of clarity and openness with which the decisions are made, can also affect political risk level.

4. Among the potential stumbling blocks to the successful implementation of PPPs is that the cost of capital to the private sector may be higher than to the public sector (OECD, 2006). The traditional argument, over and above all political reasons, for government financing projects has been that governments can borrow money at a lower interest rate than the private sector (Merna et al., 2002) which can be crucial element in value for money calculation.

### **Hybrid public private partnership models**

There is no one method for deciding which type of PPP approach will best serve the needs of a project as this depends on the project characteristics and public perception of the need for PPP (European Commission, 2003). Traditional PPP models are sometimes characterized by rigid presumptions, delays in negotiation and consequent higher costs due to various environmental factors. In order to approach numerous possibilities and chances, as well as to overcome threats and challenges which public private partnership could be faced with, hybrid models are developed. These models are applicable in specific situations and sectors, where they can bring about better quality of project delivery.

Specific features of situations and sectors are product of uncertainties. Uncertainties might be present as a result of latent defects (flaws in the existing infrastructure that are not apparent until work begins), policy changes (implying a change in service requirements), demand risks (resulting from the introduction of user choice, for example), changes in public needs or rapid changes in technology. For projects that are especially vulnerable to these uncertainties, models with increased flexibility and shorter contract periods can improve the likelihood of achieving public policy objectives for infrastructure development (Deloitte, 2009).

New models which can expand options for project procurement are:

- a. Alliancing. According to this model, not all, but only several project operations are transferred to a private partner. A project design, development and financing are part of cooperation between private and public parties. This collaboration can be expanded to other project operations throughout the project life-cycle;
- b. Joint venture. In this partnership private sector partner retains control. This type of project requires value for money test and will conform to the following criteria: (1) the private sector partner is selected through competition; (2) joint venture control is carried out by the private sector; (3) there is a clear definition of the government contribution and its limitations and (4) there is a clear agreement about risk and reward allocation (Merna et al., 2002);
- c. Bundling. Bundling refers to integration within a private sector party of all (or most of) the functions of design, building, financing, operating and maintenance of the facility in question, often in a form of special purpose vehicle (or virtual corporation) created for the specific project (Grimsey et al., 2004). Overall, synergy in project procurement can be achieved by economy of scale, more specifically, by bundling several small projects to a large one. The aim is to avoid the adversarial relationships and acrimony that sometimes characterize more conventional procurement models, and instead seek to ensure that all parties work together collaboratively for the good of the project. This model can be particularly useful in the defense sector, where projects can be large and indivisible, and where well-defined outputs are often precluded from the outset (Deloitte, 2009). Still some

limits remain. For instance, in water supply networks, when the level of water supply exceeds 400 million m<sup>3</sup>, the operation will suffer from diseconomies of scale (Imi, 2008).

- d. Competitive partnership. It is believed that market forces will provide value for money through the requirement to put contract out to competitive bidding. This is because identifiable market of private sector bidders, prepared to consider competing for the opportunity to design the services to be provided, undertake the financing and delivery of the project, should create a competitive tension and innovate solutions which will help to deliver a more economical service (Hodge et al, 2005). Specific projects are based on *ex post* resource allocation. In this case government agency can select several private partners which will practically compete for new resources;
- e. Incremental partnership. This partnership offers step-changes in service provision with lower risk and without comprehensive, "all-inclusive" commitment. Thus, government and private actors can lower risk by taking trial period for partnership. If a project is not delivered as expected, the government can hold back the project at any time and deliver project to another partner.

### Conclusion

PPP arrangements come in many forms and are still an evolving concept which must be adapted to the individual needs and characteristics of each project and project partners (European Commission, 2003). It is important to emphasize that only situation approach is valid in the case of selecting appropriate public private partnership model. The situation approach refers to the selection of optimal solution on case-to-case basis. Long term cooperation, real risk allocation and transfer of responsibility of certain parts of operations to the private sector party should result in more qualitative construction of infrastructure objects and infrastructure service provision on a mutual benefit.

The important fact that has to be considered is that governments have generally been able to pursue PPPs almost without having to justify their use. The private public partnerships have got a broad support in political circles. Political scene creators at almost every government level acquired this concept, using the phrase "the third method", in order to differ it to the complete public or private financing of infrastructure projects. Ideological issues aside, only if properly managed, the PPP can be useful tool for further infrastructure development.

### References

- Akintoye, A., Beck, M. and Hardcastle, C., 2003. Public Private Partnerships: Managing risks and opportunities, Blackwell Publishing Company.
- Deloitte, 2009. "Closing America's infrastructure gap: The Role of Public Private Partnership", A Deloitte Research Study, www.deloitte.com.
- European Commission, 2003. "Guidelines for Successful Public Private Partnership".
- Gil, N. and Beckman, S., 2009. "Infrastructure meets: Building new bridges, mending old ones", California Management Review, Vol. 51, No. 2.
- Grimsey, D. and Lewis, M., 2004. Public Private Partnerships: The worldwide revolution in infrastructure provision and project finance, Edward Elgar Publishing Ltd.
- Hemming, R., 2006. "Public-Private Partnerships, government guarantees, and fiscal risk", International Monetary Fund.
- HM Treasury, 2003. "PFI: Meeting the investment challenge," (www.hm-treasury.gov.uk/media/648B2/PFI\_604.pdf)
- Hodge, G. and Greve, C., 2005. The Challenge of public private partnerships: learning from international experience, Edward Elgar Publishing Ltd.
- Imi, A., 2008, "(UN)Bundling Public-Private Partnership contracts in the water sector: Competition in auction and economy of scale in operation", The World Bank Policy Research Paper 4459, Finance, Economics and Urban Development Department.
- Kwak, Y., Chih Y. and Ibbs, C., 2009. "Towards a comprehensive understanding of Public Private Partnerships for infrastructure development", California Management Review, Vol.51, No.2.
- Merna, T. and Njiru, C., 2002. Financing infrastructure projects, Thomas Telford.
- Miller, J., 1999. "Applying multiple project procurement methods to a portfolio of infrastructure projects", Procurement systems: A guide to best practice in construction, E&N Spon.
- Miller, R. and Lessard, D., 2000. The strategic management of large engineering project: Shaping institutions, risks, and governance, Massachusetts Institute of Technology, IMEC Research Group.
- Mody, A., 1996. "Infrastructure Delivery: Public Initiative and the Public Good", The World Bank.
- National Audit Office, 2003. PFI: Construction performance, (www.nao.gov.uk).
- Organisation for Economic Co-operation and Development, 2006. Infrastructure to 2030: Mapping policy for electricity, water and transport, OECD Publishing.
- Organisation for Economic Co-operation and Development, 2008, Public-Private Partnership: In pursuit of risk sharing and value for money, OECD Publishing.
- Osborne, S., 2000. Public Private Partnership: Theory and practice in international perspective, Routledge Advances in Management and Business Studies, London.
- Rabin, J., 2005. Encyclopedia of public administration and public policy, Taylor and Francis Group.
- Sladana Benković, 2008, "Potentials of project financing projects", Management, Belgrade, Vol.49.